

03/034 MFE

What is claimed is:

1. A coextruded, transparent, biaxially oriented
5 polyester film comprising a base layer (B) and a
heatsealable top layer (A) which is peelable from
APET, the heatsealable and peelable top layer (A)
consisting of
 - a) 50-95 % by weight of polyester and
 - 10 b) 5-40 % by weight of a polyester-incompatible
polymer (= anti-PET polymer)
based on the mass of the top layer (A),
and
 - c) the polyester being composed of 20-95 mol% of
15 units which derive from at least one aromatic
dicarboxylic acid and 5-80 mol% of units
which derive from at least one aliphatic
dicarboxylic acid, the sum of the
dicarboxylic acid-derived molar percentages
20 being 100, and
 - d) the layer thickness of the top layer (A) d_A
being from 1.3 to 3.0 μm .
2. The sealable and peelable polyester film as
25 claimed in claim 1, wherein the aliphatic
dicarboxylic acids are selected from one or more
of the following substances: pimelic acid, suberic
acid, azelaic acid, sebacic acid, glutaric acid
and adipic acid.
- 30 3. The sealable and peelable polyester film as
claimed in claim 1 or 2, wherein the aromatic
dicarboxylic acids are selected from one or more

of the following substances: terephthalic acid, isophthalic acid and 2,6-naphthalenedicarboxylic acid.

- 5 4. The sealable and peelable polyester film as
 claimed in one of claims 1 to 3, wherein the
 polyester of the top layer (A) comprises:
 from 20 to 95 mol% of terephthalate,
 from 0 to 25 mol% of isophthalate,
10 from 5 to 80 mol% of azelate,
 from 0 to 50 mol% of sebacate,
 from 0 to 50 mol% of adipate,
 more than 30 mol% of ethylene,
 based in each case on the total amount of
15 dicarboxylate or the total amount of alkylene.
5. The sealable and peelable polyester film as
 claimed in one of claims 1 to 4, wherein the
 heatsealable and peelable top layer (A) has a
20 sealing commencement temperature (= minimum
 sealing temperature) with respect to the APET side
 of APET/CPET trays of not more than 150 °C.
6. The sealable and peelable polyester film as
25 claimed in one of claims 1 to 5, wherein the
 heatsealable and peelable top layer (A) has a seal
 seam strength with respect to the APET side of
 APET/CPET trays of at least 3N.

7. The sealable and peelable polyester film as claimed in one of claims 1 to 6, wherein the heatsealable and peelable top layer (A) with respect to the APET side of APET/CPET trays has a max. sealing temperature of 220 °C.

$$0.035 \cdot \vartheta / ^\circ\text{C} - 0.9 \leq \text{peeling force } F/N \text{ per } 15 \text{ mm} \leq 0.06 \cdot \vartheta / ^\circ\text{C} - 1.4$$

8. The sealable and peelable polyester film as claimed in one of claims 1 to 7, wherein the sealing temperature (in °C) and the peeling force (in N/15 mm) are correlated via the following equation:

9. The sealable and peelable polyester film as claimed in one of claims 1 to 8, wherein the anti-PET polymer is selected from one or more of the following substances: polymers based on ethylene, propylene (PP), cycloolefins (CO), amides (PA) and styrene (PS).

10. The sealable and peelable polyester film as claimed in claim 9, wherein the anti-PET polymer is selected from one or more of the following substances: copolymers based on norbornene/ethylene and tetracyclododecene/ethylene.

11. The sealable and peelable polyester film as claimed in one of claims 1 to 10, wherein the polyester for the top layer (A) is produced from two polyesters I and II.

12. The sealable and peelable polyester film as claimed in claim 11, wherein the proportion of the polyester I in the top layer (A) is from 10 to 60 % by weight.

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13. The sealable and peelable polyester film as claimed in claim 12, wherein the polyester I consists of one or more aromatic dicarboxylates and one or more aliphatic alkylenes.

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14. The sealable and peelable polyester film as claimed in claim 11, wherein the proportion of polyester II in the top layer (A) is from 20 to 80 % by weight.

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15. The sealable and peelable polyester film as claimed in claim 14, wherein the polyester II consists of one or more aromatic dicarboxylates and also one or more aliphatic dicarboxylates and one or more aliphatic alkylenes.

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16. The sealable and peelable polyester film as claimed in one of claims 11 to 15, wherein the glass transition temperature of polyester I is more than 50 °C.

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17. The sealable and peelable polyester film as claimed in one of claims 11 to 16, wherein the glass transition temperature of polyester II is less than 20 °C.

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18. The sealable and peelable polyester film as claimed in one of claims 1 to 17, wherein the

distribution of the particle diameters of the particles has a degree of scatter which is described by a SPAN98 of ≤ 2.0 .

- 5 19. The sealable and peelable polyester film as
 claimed in one of claims 1 to 18, wherein the film
 has two layers and an AB structure.
- 10 20. The sealable and peelable polyester film as
 claimed in one of claims 1 to 18, wherein the film
 has three layers and an ABC structure.
- 15 21. A process for producing a sealable and peelable
 polyester film as claimed in claim 1, in which the
 polymers for the base layer (B) and the top layer
 (A) which is composed of a polyester which is
 composed of
- 20 a) 20-95 mol% of units which derive from at
 least one aromatic dicarboxylic acid and
 b) 5-80 mol% of units which derive from at least
 one aliphatic dicarboxylic acid,
- 25 and, where appropriate, the top layer (C) are fed
 to separate extruders, the melts are then shaped
 and layered on top of one another in a multilayer
 die to give flat melt films, then the multilayer
- 30 film is drawn off with the aid of a chill roll and
 optionally further rolls, solidified and then
 biaxially stretch-oriented and heat-set, the
 biaxial stretching being carried out in
 succession, first longitudinally (in machine
 direction) and then transversely (at right angles
 to machine direction) that the longitudinal
 stretching is carried out at a temperature in the

range from 60 to 130 °C and the transverse stretching in the range from 90 to 140 °C, and that the longitudinal stretching ratio is set within the range from 2.0:1 to 5.5:1 and the transverse stretching ratio within the range from 2.4:1 to 5.0:1.

22. The process as claimed in claim 21, in which the longitudinal stretching is carried out at a temperature in the range from 60 to 120 °C and the transverse stretching in the range from 90 to 140 °C and that the longitudinal stretching ratio is in the range from 2.0:1 to 5.0:1 and the transverse stretching in the range from 2.4:1 to 5.0:1.

23. The process as claimed in claim 21, in which the longitudinal stretching is carried out at a temperature in the range from 60 to 110 °C and the transverse stretching in the range from 90 to 140 °C and that the longitudinal stretching ratio is set within the range from 2.0:1 to 4.8:1 and the transverse stretching in the range from 2.4:1 to 5.0:1.

24. The use of a sealable polyester film as claimed in one of claims 1 to 20 as a lid film for covering APET/CPET trays.